



Woodstock Pond 2008

Woodstock Pond is a 7.5-acre impoundment located within York River State Park. Known in its early history as Taskinas Plantation, the park was the site of a 17th and 18th century tobacco warehouse where local planters stored their crops to be shipped to England. Woodstock Pond was built in the 1950s and the park itself was opened in 1980. Because of its location and the quality of the fishing, this little fishery is ideal for a family outing.

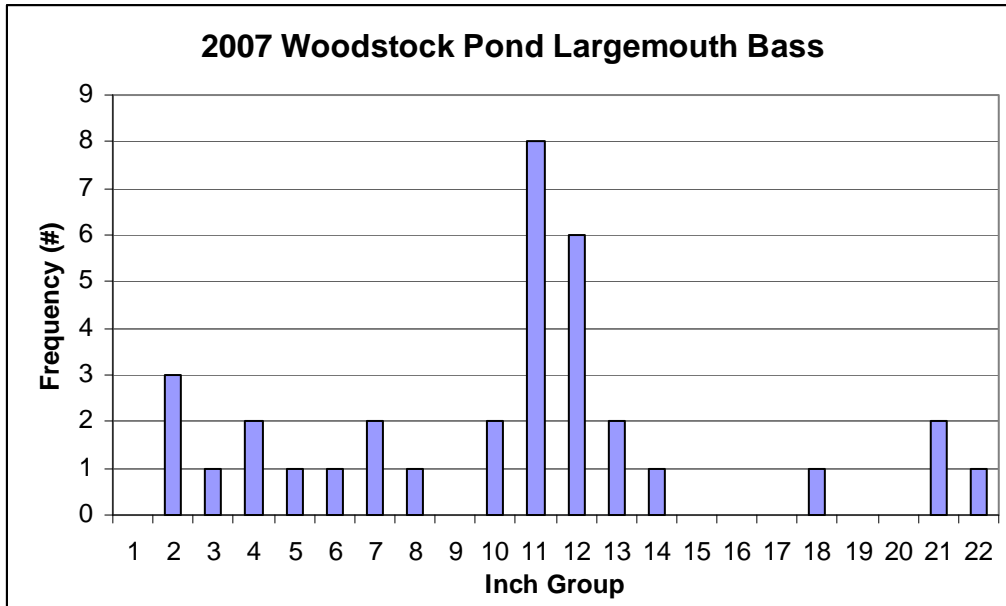
The Virginia Department of Game and Inland Fisheries sampled Woodstock Pond on October 15, 2007. The pond was last sampled on May 25, 2004. A full community sample was conducted to observe the present fishery. The electrofishing effort of 2,400 seconds (0.66 hours) was used to attain a representative sample. Two sample runs were conducted. Both the western and eastern shorelines were sampled. The water temperature was 22°C (71.6°F). Electrofishing efforts consisted of shocking along the shoreline habitat as close as possible, with the majority of the effort concentrated in the 2 to 3 foot depth range. Efforts were made to stick to the bank and shoreline brush as close as possible. This is essentially a bass and bluegill fishery with a few other species present in significant numbers. Collected species from 2007 electrofishing were largemouth bass, bluegill, redear sunfish, black crappie, American eel, grass carp and golden shiner.

Woodstock Pond provides a decent bass fishery for a small resource. A total of 34 largemouth bass were collected. The CPUE (Catch Per Unit of Effort) for largemouth bass was 51 bass/hr. This catch rate is lower than other waters within the region, but the sample provided some excitement in the form of large bass. The catch rate is higher than the 2004 sample (CPUE: 46.8 bass/hr). The size distribution of the collected bass can be seen on the enclosed length frequency graph. The majority of the bass sample consisted of bass in the 10 to 14 inch range. The high proportion of bass in this size range (19 of 34 bass, 55.9%) shows what the average fisherman will most likely be catching. A total of 10 juvenile bass less than 8 inches in length shows signs of fair recruitment from the last two year-classes.

With largemouth bass being the most popular game fish in this country, it has been considered that a "preferred" bass is one that is over 15 inches in length. It is through this size classification that population dynamics are analyzed. The PSD (Proportional Stock Density) is the proportion of bass in the population over 8 inches (stock-size) that are also at least 12 inches (quality-size). The sample showed a high PSD value of 62, which is a direct reflection of the 15 quality-sized bass. The sample had a

total of 24 bass that were of stock-size or larger. A balanced bass/bluegill fishery has a bass PSD value within the 40 – 70 range. The RSD-P (Relative Stock Density of Preferred bass) is the proportion of bass in the population over 8 inches that are also at least 15 inches. The RSD-P value of 17 is a direct reflection of the 4 preferred bass collected. The 2007 PSD and RSD-P values are higher than the 2004 values (PSD = 44, RSD-P = 11).

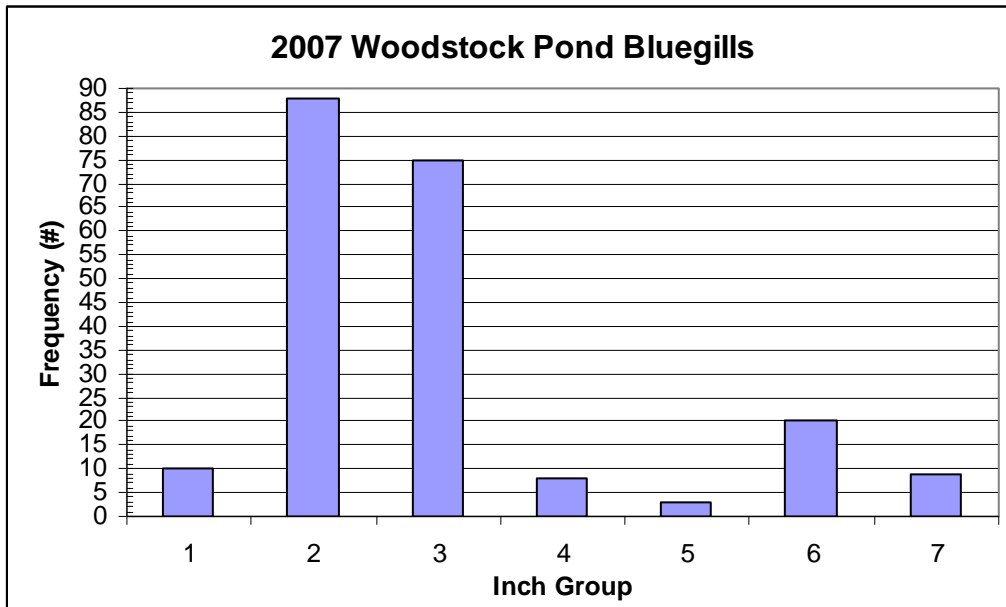
Figure 1. Length frequency of largemouth bass collected from Woodstock Pond on October 15, 2007 (N = 34, CPUE = 51/hr)



Weights were taken on largemouth bass to calculate relative weight values. Relative weight values are an indication of body condition. A value from 95 to 100 represents a fish that is in the healthy range and finding a decent amount of food. A higher relative weight value indicates fish with a better body condition. The overall relative weight value was 96. The relative weight values for stock, quality, and preferred bass (>8", >12", >15", >20") were 96, 95, 108 and 110 respectively. These relative weight values are within or above the desired range and show the bass are successfully finding enough prey items to forage upon. The three largest bass measured 22.4" (7.13 lbs), 21.7" (6.9 lbs) and 21.73" (6.26 lbs).

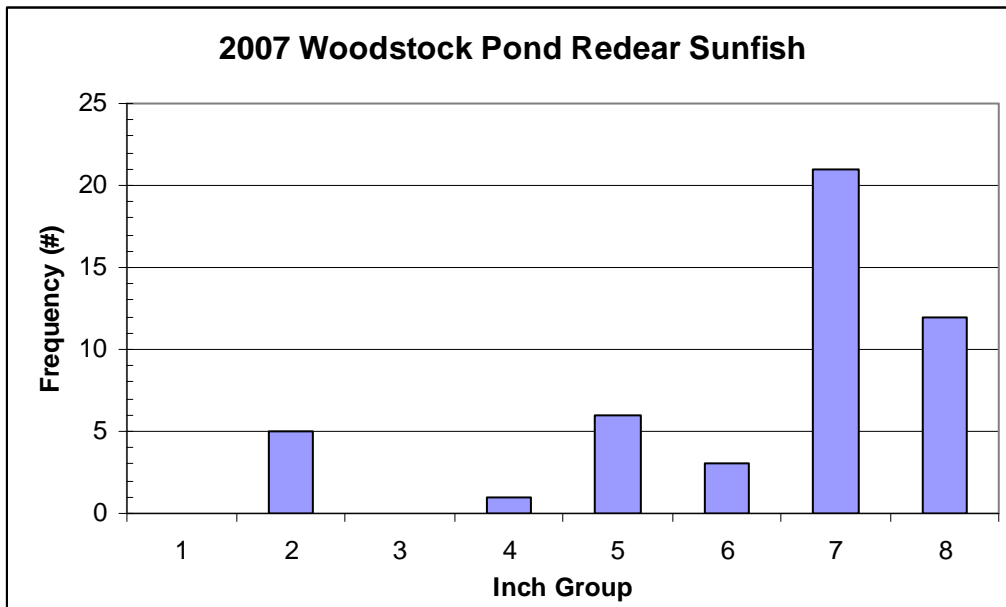
Woodstock Pond has a bluegill fishery that is dominated by fish less than 5 inches in length. Our electrofishing effort collected 213 bluegills. The expanded CPUE of 319.5 bluegills/hr showed a marked improvement from the 2004 survey (CPUE: 228.6 bluegills/hr). The size distribution can be seen on the attached length frequency graph. Bluegills ranged in size from 1 – 7 inches. The majority of the bluegills were within the 2 – 3 inch group (163/213, 76.5%). The PSD for bluegill is the proportion of bluegill over 8 cm (stock size) that are also at least 15 cm (quality size). The bluegill PSD of 29 is a reflection of the 29 quality-sized bluegills in the 6 to 7.5 inch range. The PSD value is within the desired PSD range of 20 to 40 that would represent a balanced fishery. A total of 99 stock-sized bluegills were collected.

Figure 2. Length frequency of bluegills collected from Woodstock Pond on October 15, 2007. (N = 213, CPUE = 319.5/hr)



The 2007 electrofishing survey showed the redear sunfish population was primarily dominated by fish greater than 6 inches in length. The survey results showed an improvement in catch rate with 48 redear sunfish collected. The CPUE of 72/hr is higher than the 2004 survey (CPUE: 41/hr). Limited abundance of juvenile redear sunfish was detected with the collection of 6 fish less than 5 inches in length. The largest fish was 228 mm (8.97") in length.

Figure 3. Length frequency of redear sunfish collected from Woodstock Pond on October 15, 2007. (N = 48, CPUE = 72/hr)



The survey revealed the presence of 48 black crappies for a CPUE of 72/hr. The 2007 survey showed the size distribution of black crappies to be centered in the 3 to 5 inch range. These juvenile fish show that poor recruitment is not a problem within Woodstock Pond. The full status as to the possible stunted nature of the population needs additional sampling. Only one adult black crappie was collected. This fish measured a respectable 10.5 inches and weighed 0.66 pounds. Anglers have caught some decent crappies in the past. The full extent of crappie harvest is not known at this time.

The pond has some additional diversity in the form of American eels, grass carp and golden shiners. Each of these species was collected in limited abundance and may provide some excitement to an angler from time to time. The grass carp were stocked a number of years ago to assist in the control of aquatic vegetation. The grass carp average around 37 to 38 inches in length. Anglers should carefully release these fish if they happen to catch one while fishing Woodstock Pond.

Summary

An electrofishing sample gives you a snapshot picture of what the fishery looks like. A typical electrofishing survey of a small lake provides a fairly accurate account of the fish assemblage that is present. A great number of variables interact on a fishery and can influence the population structure of a desired species such as the largemouth bass. The 2007 survey showed a decent largemouth bass population (CPUE = 51/hr) with the majority of fish in the 10 to 14 inch range. Only 4 preferred-sized bass (> 15") were collected. These bass measured in at impressive weights of 7.13, 6.9, 6.26 and 4 pounds. The limited number of bass greater than 15 inches may be a direct result of angler harvest. The current bass regulation limit is set at a minimum of 15 inches. The survey revealed an abundance of small bluegills less than 5 inches in length. A fair number of 6 to 7 inch bluegills were also collected. The survey revealed some quality redear sunfish in the 7 to 8 inch range. The black crappie population appears to have shifted to an abundance of juvenile crappies in the 3 to 5 inch range. Larger black crappies may have escaped our sampling efforts by holding in deeper water away from the shoreline.

Anglers can fish from the bank or from rented row boats. Shoreline angling access is best off of the dam where several fishing platforms and piers have been constructed. Boat rentals offer anglers a chance to try their fishing luck or skill in areas of the pond not accessible from the shore. Private boats are not permitted on Woodstock Pond. There is a 15-inch minimum size limit on largemouth bass. The park caters to a wide variety of activities. There are various trails for biking, hiking, and horseback riding. There are picnic shelters, playgrounds, an interpretive center, and a gift shop. Organized group activities are also offered.

York River State Park can be reached by taking Route 607 from I-64. Heading in the direction of Croaker, take Route 606 east to the park. For further information, please contact the park office at 757-566-3036.

Table 1. Total weight, number, and catch per unit effort of fish sampled by electrofishing from Woodstock Pond, May 25, 2004

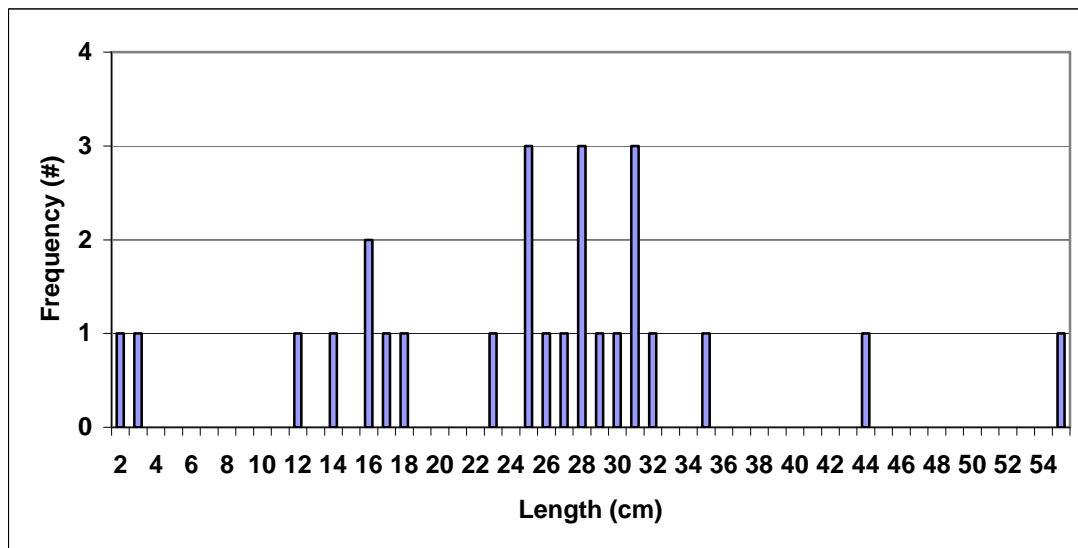
				CPUE	(#/hr)	
Species	Wt. (g)	N	Fing.	Inter.	Harv.	Total
Largemouth Bass	9286	26	14.4	18	14.4	46.8
Bluegill	3115*	127	90	54	84.6	228.6
Redear sunfish	2316*	23	1.8	1.8	37.8	41.4
Black crappie	172	3				5.4
American eel	431	7				12.6
	Total	186				

* Bluegill and redear sunfish weights were from 56 and 19 fish, respectively.

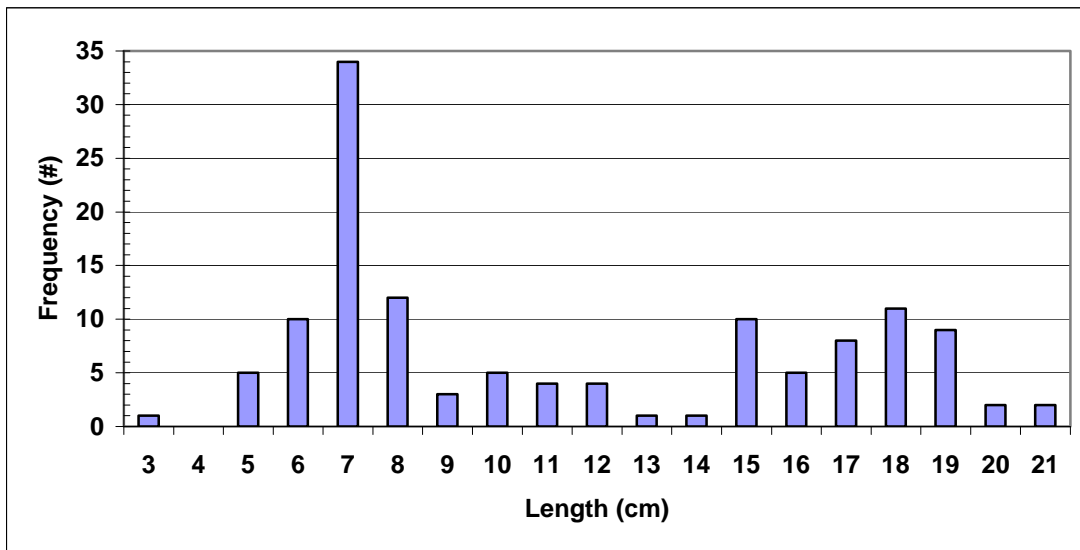
Table 2. Population statistics for selected species collected by electrofishing in Woodstock Pond, May 25, 2004

	PSD	RSD-P	RSD-M	Wr	Wr (int)	Wr (harv)
Largemouth Bass	44	11	6	84	84	88
Bluegill	61	5	0	89	89	87
Redear sunfish	95	0	0	85	85	85

Graph 1. Length frequency histogram of largemouth bass collected by electrofishing in Woodstock Pond, May 25, 2004



Graph 2. Length frequency histogram of bluegill collected by electrofishing in Woodstock Pond, May 25, 2004



Graph 3. Length frequency histogram of redear sunfish collected by electrofishing in Woodstock Pond, May 25, 2004

